TRUMPETER SWAN RESTORATION

Prior to the settlement of Iowa, trumpeter swans nested throughout the state. However, wetland drainage and unregulated hunting of trumpeters soon brought their demise. Prior to 1998, the last wild nesting trumpeter swan in Iowa occurred in 1883 on the Twin Lakes Wildlife Area southwest of Belmond, Iowa in Hancock County. In 1998, three cygnets hatched from a wild nesting trumpeter pair in Dubuque County. This pair hatched 5 in 1999, 5 again in 2000, 4 in 2001, and 5 in 2002.

In 2000, a second pair nested on a Winnebago County Conservation Board wetland (Russ Tract at Thorpe Park) 7 miles west of Forest City. This pair had 5 eggs. Unfortunately none hatched. We did, however, add a sixth egg and it hatched providing this pair with a young cygnet to help bond the pair to the wetland nest site.

Trumpeter swans were first given nationwide protection in 1918 when the United States, Canada, and Mexico signed the International Migratory Bird Treaty. A nationwide swan count in the early 1930s showed that only 69 existed in the continental United States with all those occurring in Red Rock Lakes National Wildlife Refuge in southwest Montana.

In 1993, the Iowa Department of Natural Resources developed a plan to restore trumpeter swans to the state. Our goals are to: (1) establish 15 wild nesting pairs to the state by the year 2003 and (2) use the swans to promote the many values of wetlands not only for wildlife habitat but for water quality and flood reduction.

Iowa swans are being obtained from zoos, private propagators, other state swan projects, and any other sources that might have swans available. The DNR has obtained rumpeter swans from 25 different states. We are also establishing flightless breeder pairs at appropriate sites, the young of which will be allowed free flight. Fifty-five partnership breeding pair sites are established. All trumpeter swans released in Iowa will be marked with plastic green or red neck collars and leg bands, as well as, U.S. Fish and Wildlife Service bands. The plastic neck and leg bands are marked with alpha letters F, H, P, J, C, T, and numbers 00 through 99.

We are trying to obtain as much outside funding as possible and we are the fortunate recipients of \$165,000 in memory of David A. and Robert Luglan Sampson, formerly of Webster City. Numerous individuals, organizations, and corporations have contributed significant smaller dollar amounts. Considerable soft match in-kind contributions have also been made and are estimated at over \$350,000.

Table 12.1 and Fig 12.2 show the trumpeter swans released and release sites in Iowa since 1994. Seventy-six swans were released throughout Iowa in 2003. After five years of migration observations, most migrating Iowa swans that migrate are wintering in northeast and east central Kansas and northwest and west-central Missouri. One Iowa trumpeter swan did winter as far south as Oklahoma during the winter of 1998-99. Also, one swan wintered near Heber Springs, Arkansas in 1999-2000. During the 2002-2003 winter 2 swans released at Hottes Lake near Spirit Lake, migrated to Lubbock, Texas (the southernmost migration) and spent the winter there. One of those returned to Iowa at Pickeral Lake in Buena Vista County and perhaps the other one as well because it had lost its neck collar in Texas. These are possibly the first known, or at least the first of very few interior swans to migrate to Texas since before the 1880's. In 2001, the swans that nested at Union Slough NWR and Mallard Marsh wintered in southwest Arkansas. The mild winter of 2001-2002 indicated that swans did not need to move as far south as they had in normal winter conditions. Also in 2001-2002, a record 25 free flying trumpeter swans from Iowa, Minnesota, and Wisconsin wintered near Woolstock, Iowa. During 2002-2003 an estimated 75 to 100 trumpeter swans wintered in the state. If swans can find open water during the winter, many of them will remain throughout the state of have 6 wintering Iowa. We developing, including Mason City, Atlantic, Woolstock, Webster City, Waterloo and the lower reaches of the Desmoines River in southeast Iowa. Table 12.2 shows the location and number of trumpeter swans that have been banded on these wintering sites. These "winter" sites have provided many additional people the opportunity to view this "charismaticmega."

Migration movements "out of that norm" included 3 swans released at Union Slough NWR that migrated to and wintered in southeast Colorado near Ft Two of these were observed at Monticello, Minnesota in the spring of 1997. The straight-line round trip mileage for these birds is over 1300 miles. We have been disappointed that several of our marked swans have lost both plastic neck collars and legs bands and a few have lost the metal USFWS leg bands. This does problems analyzing both create movements and mortality of Iowa Trumpeter Swans.

A review of the last 7 years of swan sightings indicates, most areas of the state are now seeing swans at sometime during the year. This is another indication that the restoration effort, although slow, is moving forward. During 2002, 27 of our partnership pairs' nests hatched. producing 127 young. Eleven additional nests failed to hatch and about 3 dozen of the 127 cygnets have died of various causes. The invasion of West Nile Virus into Iowa had us cautiously concerned. but at this point we have not seen any impact of this virus in trumpeter swans. We continue to obtain several cygnets from a few other states and zoos across the nation, including 2 new zoos—the National Zoo in Washington D.C. and the Great Plains in Sioux Falls, South Dakota. Unless we have unfortunate luck, we should be able to release nearly 90 swans during the spring of 2004. The DNR is excited about the future of trumpeter swans in the state.

Known mortality to date includes the following: 22 have died in power line collisions, 36 were shot, 5 died of apparent malnutrition, and 20 died of unknown Several causes. mortalities have likely occurred from completely unknown causes as we have not had many mortality reports from unmarked swans. Mortality rates are somewhat higher than anticipated and will likely slow our trumpeter swan restoration efforts. Iowa currently has the dubious distinction of having the highest shooting mortality of any state in the Midwest. We hope that with enough publicity, on the swan poaching in Iowa and with additional enforcement efforts and public scrutiny, we will see the illegal shooting greatly reduced. Shooting trumpeter swans will cost \$1500 in liquidated damages, court costs, and perhaps hunting license revocation.

A major milestone was reached in 1998, 1999, and again in 2000, when the first and second free-flying trumpeters nested in Iowa since 1883. Four free

flying females have bonded and mated with 5 captive/pinioned males and have produced eggs. Besides these, we apparently have several pairs of Iowa swans nesting in Southern Minnesota and Wisconsin. The one near Mankato, MN and the one near Potosi, WI are the southern most nesting swans in the respective states. At least one Iowa bird, a male, was part of a nesting pair on the north shore of Lake Ontario. In 2001, 9 trumpeter swan nest attempts occurred in Iowa. Six of these hatched and produced Seventeen of these were 19 young. surviving as of September 1, 2001. High mortality of adults from illegal shootings had us greatly concerned during the past 2 years that we would not have very many wild nesting swans during the springs of 2002 and 2003. However, in 2002, we had 8 nest attempts in Iowa and 2 Iowa pairs nesting on the Wisconsin side of the Mississippi River. Figure 12.2. shows wild trumpeter swan nest attempts in 2001 and 2002. In 2003, we had 13 trumpeter swans nest attempts in Iowa and the same 2 Iowa pair nesting on the Wisconsin side of the Mississippi River producing a record 44 young in the wild. Figure 12.3. Since 1998, 36 trumpeter swan nests have occurred in Iowa, 32 of which hatched at least one egg.

In 2003, 13 wild trumpeter swans nested in Iowa plus the same two nested on the Wisconsin side of the Mississippi River. We now have wild trumpeters nesting in the above listed counties as well as the additional counties of Dickinson, Hamilton, Hancock, and Ida. After 120 years of absence, trumpeters have returned to nest on the last historical nesting site on the East Twin Wildlife Area in Hancock County. The attached

figure shows wild trumpeter nesting attempts in Iowa.

At least 6 "traditional" migrational/wintering sites are developing in Iowa, holding Iowa, Wisconsin and Minnesota swans providing the public with exciting viewing opportunities of free flying trumpeter swans. Iowa released swans commonly winter in Iowa, Missouri, Kansas, Illinois and Nebraska. As the opportunity presents itself, we are attempting to band some swans on winter sites. To date, Iowa released swan have been sighted in 15 states and the Province of Ontario, Canada.

Support for Iowa's Trumpeter Swan Restoration Program has been phenomenal. Consumptive and nonconsumptive users have rallied behind the effort with a powerful passion to bring this charismatic-mega fauna back to the landscape and skies of Iowa.

Organizational support includes: Iowa Wildlife Federation, Ducks Unlimited, Pheasants Forever, Iowa Natural Heritage Foundation, Iowa Wild Turkey Federation, Waterfowl Association of Iowa, ISU Trumpeter Swan Committee, Iowa Trapper's Association, Iowa Furharvesters, Buena Vista County Trumpeter Swan Restoration Committee, Des Moines, Cedar Rapids, and Northern Iowa Prairie Lakes Audubon Chapters, Iowa Association of Naturalists, The Izaak Walton League, North American Sheep Foundation, ISU Fisheries and Wildlife Biology, Furharvesters, and Environmental Council Chapters, Iowa Wildlife Rehabilitators Association, U.S. Fish & Wildlife Service, and several other entities.



Table 12.1. Trumpeter swans released in Iowa, 1994 - present.

Site	Year	Area	County	Males	Females	Total
1	1994	Ventura Marsh	Cerro Gordo	Unk.	Unk.	4
2	1995	Kettleson's WPA	Dickinson	5	5	10
3		Jim Foreman's	Dubuque	2	2	4
2	1996	Kettleson's WPA	Dickinson	7	4	11
4		Union Slough NWR	Kossuth	5	5	10
5		Spencer	Clay	3	1	4
6		Anderson Lake	Hamilton	2	2	4
7		Harold Brun's	Lee	0	2	2
1	1997	Ventura Marsh	Cerro Gordo	3	6	9
2		Kettleson's WPA	Dickinson	3	5	8
8		Lost Island Marsh	Palo Alto	4	4	8
9		Eagle Lake	Hancock	4	4	8
10		Goose Lake	Greene	1	1	2
2	1998	Kettleson's WPA	Kossuth	5	3	8
4		Union Slough	Kossuth	5	5	10
5		Spencer	Clay	1	2	3
6		Anderson Lake	Hamilton	3	3	6
11		Bill Colwell	Black Hawk	1	3	4
12		Goose Lake	Clinton	1	5	6
13		Bjorkboda Marsh	Hamilton	1	1	2
14		Cheever Lake	Emmet	4	4	8
15		Cone Marsh	Louisa	3	3	6
16		Don Holzer	Dubuque	2	1	3
3		Jim Foreman	Dubuque	0	1	1
2	1999	Kettleson's WPA	Dickinson	3	3	6
4		Union Slough NWR	Kossuth	2	2	4
18		Green Island	Jackson	3	3	6
19		Henry Bohlen	Des Moines	1	1	2
20		Union Hills	Cerro Gordo	3	3	6
21		Myre Slough	Winnebago	3	3	6
22		East Twin Lake	Hancock	3	3	6
23		Mallard Marsh	Cerro Gordo	3	3	6
2	2000	Kettleson's WPA	Dickinson	6	6	12
4		Union Slough NWR	Kossuth	2	4	6
11		Bill Colwell	Black Hawk	3	7	10
12		Goose Lake	Clinton	2	4	6
14		Cheever Lake	Emmet	2	4	6
16		Don Holzer	Dubuque	2	1	3
23		Mallard Marsh	Cerro Gordo	1	1	2
24		Cherokee County	Cherokee	2	1	3
25		Little Storm Lake	Buena Vista	1	1	2
26		Four Mile WPA	Emmet	2	4	6
27		Joice Slough	Worth	3	3	6
28		Lake Sugema	Van Buren	5	2	7
29		Muskrat Slough	Jones	3	3	6
30		Pickeral Lake	Clay	4	3	7
31		Pin Oak Bottoms	Lucas	1	1	2
32		Rock Creek	Clinton	3	3	6
33		Thorpe Park	Winnebago	1	0	1
2	2001	Kettleson's WPA	Dickinson	5	3	8
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Site	Year	Area	County	Males	Females	Total
11	2001	Bill Colwell	Black Hawk	2	2	4
13		Bjorkboda Marsh	Hamilton	1	1	2
15		Cone Marsh	Louisa	2	2	4
20		Union Hills	Cerro Gordo	3	3	6
24		Cherokee County	Cherokee	1	2	3
30		Pickeral Lake	Clay	2	2	4
31		Pin Oak Bottoms	Lucas	1	1	2
33		Thorpe Park	Winnebago	1	1	2
34		Big Wall Lake	Wright	4	1	5
35		Dick Block	Clinton	1	1	2
36		Blue Wing Marsh	Palo Alto	4	2	6
37		Colyn Marsh	Lucas	2	2	4
38	•	Crawford Creek	Ida	2	2	4
39		Dunbar Slough	Greene	1	0	1
40		East Slough	Emmet	5	1	6
41		Killen Wetland	Steele, MN	1	1	2
42		Kiowa Marsh	Sac	3	1	4
43		Lake Wapello	Davis	1	1	2
44		Kirby Roberts	Calhoun	1	2	3
45		Princeton WMA	Scott	2		3 7
		Buena Vista WMA		3	4	
46	2002		Scott	1	1	2
47	2002	Amana Forestry	Iowa	3	1	4
49		Big Mill Pond WMA	Jackson	1	1	2
50		Center Lake	Dickinson	1	1	2
51		Clark Lake	Cerro Gordo	1	1	2
52		Virgil Cole's WRP	Van Buren	2	2	4
40		East Slough WMA	Emmet	2	2	4
22		East Twin Lake	Hancock	1	1	2
53		Elmer Kettleson	Clinton	0	2	2
2		Kettleson's WPA	Dickinson	3	3	6
54		Hurstville Marsh	Jackson	1	1	2
17		Duane Kennedy	Dubuque	1	1	2
43		Lake Wapello	Davis	1	1	2
55		Lizard Lake	Pocahontas	1	1	2
23		Mallard Marsh	Cerro Gordo	1	1	2
56		New Hartford	Butler	1	0	1
57		Ralph Steines Marsh	Clinton	1	1	2
32		Rock Creek Park	Clinton	0	1	1
58		Smith Slough	Clay	2	2	4
59		South Twin Lake	Calhoun	3	2	5
33		Thorp Recreation Area	Winnebago	1	1	2
60		Richard Baack Wetland	Cerro Gordo	1	1	2
4		Union Slough NWR	Kossuth	2	2	4
1		Ventura Marsh	Cerro Gordo	1	1	2
61		White's Pond	Clinton	2	0	2
6	2003	Anderson Lake	Hamilton	1	1	2
62	2003	Anderson Wildlife Area	Montgomery	1	1	2
63		Artesian Marsh	Carroll	1	1	2
11		Beaver Valley Wetland	Blackhawk	2	2	4
49 24		Big Mill Pond WMA	Jackson	0	2	2
34		Big Wall Lake	Wright	1	1	2
13		Bjorkboda Marsh	Hamilton	1	1	2

Site	Year	Area	County	Males	Females	Total
57		Robert Boock, Jr.	Clinton	1	1	2
32		Bulgers Hollow	Clinton	1	1	2
51		Clark Lake	Cerro Gordo	0	2	2
15		Cone Marsh	Louisa	2	1	3
24		Cherokee County	Cherokee	0	4	4
39		Dunbar Slough	Greene	1	1	2
64		Eagle Lake	Kossuth	1	1	2
40		East Slough WMA	Emmet	0	2	2
32		Gomer's Marsh	Clinton	0	2	2
65		Gordan's Marsh	Hamilton	1	1	2
18		Green Island	Jackson	1	1	2
2		Kettleson's WPA	Dickinson	1	2	3
44		Kirby Roberts	Calhoun	2	0	2
43		Lake Wapello	Davis	3	2	5
66		Negus Rec. Area	O'Brien	1	1	2
60		Paul Willis Wetland	Cerro Gordo	1	1	2
30		Pickeral Lake	Clay	3	1	4
67		Preparation Canyon	Monona	1	0	1
57		Ralph Steines Marsh	Clinton	1	1	2
60		Richard Baack Wetland	Cerro Gordo	1	1	2
68		Rush Lake WMA	Palo Alto	1	1	2
58		Smith Slough	Clay	1	1	2
59		South Twin Lake	Calhoun	1	1	2
20		Spillman's WMA	Cerro Gordo	0	2	2
20		Union Hills	Cerro Gordo	2	2	4
					Grand Total	496

The 1994 Ventura Marsh swans escaped captivity.

Table 12.2. Wild free flying Trumpeter swans banded and released in Iowa, 1997 - present.

Year	Area	County	Males	Females	Total
1997	Miller's Quarry	Black Hawk	0	1	1
1998	Holzer's Pond	Dubuque	2	1	3
1999	Mason City	Cerro Gordo	3	2	5
2000	Holzer's Pond	Dubuque	2	1	3
2000	Mason City	Cerro Gordo	2	2	4
2000	Stark/Nessa Quarry	Hamilton	2	0	2
2001	Dunbar Slough	Greene	1	0	1
2001	Kennedy's Pond	Dubuque	1	1	2
2002	Holzer's Pond	Dubuque	3	1	4
2002	Schildberg Gravel Quarry	Cass	1	4	5
2002	East Twin Lake	Hancock	2	0	2
2003	Schildberg Gravel Quarry	Cass	2	2	4
				Grand Total	36

Figure 12.1. Trumpeter swan release sites, 1994 - present. Numbers are referenced in Table 12.1



